U. S. ARMY ENGINEER
GEODESY, INTELLIGENCE AND MAPPING RESEARCH AND DEVELOPMENT AGENCY
FORT BELVOIR, VIRGINIA

ENGGM-IN 18 April 1963

MEMO FOR RECORD

SUBJECT: Change Detection Conference, [redacted], 9-10 April 1963 STAT

[redacted] STAT

The Change Detector program is essentially on schedule. The electronics is a little ahead of schedule, although the shadow rejection circuitry and the final design are a little behind schedule. This will have no effect on final completion date, however, [redacted] has obtained approval for about $33,000 additional to amend the contract to provide for viewing with 50 lines per mm. instead of 20 as prescribed in the contract. This will require a CRT with smaller spot diameter which must be obtained by special order, more rigid frame bracing, and better voltage control. Delivery date will be extended two months because of the time required to obtain the new CRT. STAT

[redacted] was asked to prepare a proposal for a study on the feasibility, methods, and costs of developing a Change Detector that will be compatible for use with photography having the highest available resolution. * [redacted] will have this proposal ready in about a month. STAT STAT

Several concepts of change detection must be considered. Higher resolution might be required for interpretation and analysis than for change detection. Change detection might be done using the best available CRT, then the scene could be magnified by some other method for viewing with greater resolution. Or a CRT with higher resolution might be developed. Although the CRT has resolution limits much lower than optical systems, the use of a CRT for change detection has certain advantages for processing the information, such as enhancing and clipping.

Resolution of the entire system could be improved so change detection as well as viewing can be done at maximum resolution. This might require great improvement in the CRT or perhaps the development of some other method of change detection in which a CRT is not used.

Amendment to the present contract will enable us to get a Change Detector with improved resolution with little delay in the delivery date.

Development of a Change Detector with significantly greater resolution is likely to require components not yet available and require a completely new design. This will take a large amount of money and probably two or three years from the present time.

With the delivery of the Change Detector early next year, we will have the opportunity of working with it. There will be some problems encountered in its use that can be resolved only with experience. This use will provide important data to be incorporated in the design of any future Change Detector.

STAT

Project Engineer
Intelligence Division

* NOTE - After conference at his office upon returning, STAT called STAT delay the preparation of a proposal for the feasibility study for a high resolution Change Detector. Right now they are to submit separate estimates for feasibility studies for Change Detectors with two different levels of higher resolution.